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10/579,329	07/13/2007	Yasushi Miyajima	290788US8PCT	1876
22850 7590 02/05/2009 OBLON, SPIVAK, MCCLELLAND MAIER & NEUSTADT, P.C. 1940 DUKE STREET ALEXANDRIA, VA 22314			EXAMINER RAJAN, KAI	
			ART UNIT 3769	PAPER NUMBER
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Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

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Office Action Summary	Application No. 10/579,329	Applicant(s) MIYAJIMA ET AL.	
	Examiner KAI RAJAN	Art Unit 3769	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on November 5, 2009.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1 - 41 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1 - 41 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Examiner acknowledges the reply filed November 5, 2008, from which claims 1 – 41 are currently pending.

Note to Applicant Regarding Claim Interpretation

The terms “wherein” and “configured to” in the claim(s) may be interpreted as intended use. Intended use/functional language does not require that reference specifically teach the intended use of the element. A recitation of the intended use of the claimed invention must result in a structural difference between the claimed invention and the prior art in order to patentably distinguish the claimed invention from the prior art. If the prior art structure is capable of performing the intended use, then it meets the claim.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

Claims 1, 2, 4, 7 – 27, and 41 are rejected under 35 U.S.C. 102(e) as being anticipated by Engstrom U.S. Patent No. 6,549,756.

1. A portable electronics input device comprising:

a body having an interior portion containing electronics that are configured to perform wireless communication, said wireless communication being at least one of mobile telephone communication and television remote controller communication (Column 2 lines 51 – 66);

bioindex detecting means provided within a region including a holding position of a surface of the body that a user holds while performing said wireless communication, and for detecting, for a time period during which the user grasps the body, bioindex of the user through a skin of the user (Column 2 lines 51 – 67, column 3 lines 1 – 16); and

bioindex analyzing means for analyzing bioindex which has been detected by the bioindex detecting means (Column 3 lines 7 – 38), wherein

said surface of said body including a first sensor on a first side of said body and a second sensor on a second side of said body, said first sensor and said second sensor positioned to be in contact with a hand of the user when performing wireless communication (Column 2 lines 51 – 67, column 3 lines 1 – 16).

2. The input device according to claim 1,

wherein the bioindex is at least one of sweating, heartbeat, pulse wave, Galvanic Skin Reflex, Galvanic Skin Response, MV (Micro Vibration), myoelectric potential and SPO2 (blood oxygen saturation level), and combination of these bioindices (Column 2 lines 51 – 67, column 3 lines 1 – 16 heart rate).

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4. The input device according to claim 1,
wherein the bioindex detecting means is pulse wave detecting means for detecting pulse wave of user (Column 2 lines 51 – 67, column 3 lines 1 – 16).

7. The input device according to claim 1, including:
the plural bioindex detecting means,
the input device further comprising:
selector means for selecting at least one bioindex information from bioindex information which have been detected by the plural bioindex detecting means, wherein the bioindex analyzing means serves to analyze bioindex information which has been selected by the selector means (Column 2 lines 51 – 67, column 3 lines 1 – 55. Different sensors are selected for measuring based on signal strength.).

8. The input device according to claim 7,
wherein the selector means serves to compare signal-to-noise ratios of output values which have been detected by the plural bioindex detecting means to select an output value having value of higher signal-to-noise ratio (Column 2 lines 51 – 67, column 3 lines 1 – 55. Different sensors are selected for measuring based on signal strength.).

9. The input device according to claim 7,
wherein the selector means serves to compare detection levels of output values which have been detected by the plural bioindex detecting means to select an output value having

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higher detection level (Column 2 lines 51 – 67, column 3 lines 1 – 55. Different sensors are selected for measuring based on signal strength.).

10. The input device according to claim 7,

wherein the selector means serves to compare auto-correlation functions of output values which have been detected by the plural bioindex detecting means to select an output value in which correlation has been taken to more degree (Column 2 lines 51 – 67, column 3 lines 1 – 39. Different sensors are selected for measuring based on signal strength.).

11. The input device according to claim 7,

wherein the selector means serves to select one output from outputs from the plural bioindex detecting means (Column 2 lines 51 – 67, column 3 lines 1 – 39. Different sensors are selected for measuring based on signal strength.).

12. The input device according to claim 7,

wherein the selector means serves to select, as an output value, a value which has been detected substantially as the same value at the plural bioindex detecting means (Column 2 lines 51 – 67, column 3 lines 1 – 39. Different sensors are selected for measuring based on signal strength.).

13. The input device according to claim 7,

wherein the selector means serves to select, as an output value, an average value obtained by averaging values detected at the respective bioindex detecting means (Column 2 lines 51 – 67, column 3 lines 1 – 39. Different sensors are selected for measuring based on signal strength.).

14. The input device according to claim 7,

wherein the respective plural bioindex detecting means are similar bioindex detecting means for detecting the same bioindex (Column 2 lines 51 – 67, column 3 lines 1 – 39. Different sensors are selected for measuring based on signal strength.).

15. The input device according to claim 7,

wherein the respective plural bioindex detecting means are different kinds of bioindex detecting means for detecting the same bioindex by different techniques (Column 2 lines 51 – 67, column 3 lines 1 – 39. Different sensors are selected for measuring based on signal strength.).

16. The input device according to claim 7,

wherein the respective plural bioindex detecting means are different kinds of bioindex detecting means for detecting different bioindices (Column 2 lines 51 – 67, column 3 lines 1 – 39. Different sensors are selected for measuring based on signal strength.).

17. The input device according to claim 7,

wherein the input device is provided at an operation input unit of any one of electronic equipments including personal computer, television image receiver, video and/or audio signal

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recording and/or reproducing device and air conditioner (Column 2 lines 51 – 67, column 3 lines 1 – 39).

18. The input device according to claim 7,
wherein the input device is provided at controller for television game machine (Column 2 lines 51 – 67, column 3 lines 1 – 39).

19. The input device according to claim 7,
wherein each of the plural bioindex detecting means is provided at a control or steering unit that user holds in control or steering at any one of machines to be controlled including automotive vehicle, train, airplane, ship and industrial machinery (Column 2 lines 51 – 67, column 3 lines 1 – 39).

20. An input method including:
contacting a body of a portable electronics device with a hand of a user, said body having an interior portion containing electronics that are configured to perform wireless communication, said wireless communication being at least one of mobile telephone communication and television remote controller communication (Column 2 lines 51 – 66);

a bioindex detection step of detecting, by detecting means provided within a region including a holding position of a surface of a body, that a user holds while performing said wireless communication, bioindex of the user through a skin of the user for a time period during

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which the user holds the body to be operated (Column 2 lines 51 – 67, column 3 lines 1 – 16);
and

a bioindex analysis step of analyzing with a processor bioindex which has been detected at the bioindex detection step (Column 3 lines 7 – 38), wherein

said surface of said body including a first sensor on a first side of said body and a second sensor on a second side of said body, said first sensor and said second sensor positioned to be in contact with a hand of the user when performing wireless communication (Column 2 lines 51 – 67, column 3 lines 1 – 16).

21. The input method according to claim 20,

wherein the bioindex is at least one of sweating, heartbeat, pulse wave, skin temperature, Galvanic Skin Reflex, Galvanic Skin Response, MV (Micro Vibration), myoelectric potential and SPO2 (blood oxygen saturation level), or combination of these bioindices (Column 2 lines 51 – 67, column 3 lines 1 – 16 heart rate).

22. The input method according to claim 20,

wherein the bioindex detection step consists of plural bioindex detection steps, the input method including:

a selection step of selecting at least one bioindex information from bioindex information which have been detected at the plural bioindex detection steps (Column 2 lines 51 – 67, column 3 lines 1 – 55); and

a bioindex analysis step of analyzing bioindex information which has been selected at the selection step (Column 2 lines 51 – 67, column 3 lines 1 – 55).

23. The input method according to claim 22,
wherein the respective plural bioindex detection steps detect the same bioindex (Column 2 lines 51 – 67, column 3 lines 1 – 55).

24. The input method according to claim 22,
wherein the respective plural bioindex detection steps detect the same bioindex by different techniques (Column 2 lines 51 – 67, column 3 lines 1 – 55).

25. The input method according to claim 22,
wherein the respective plural bioindex detection steps detect different bioindices (Column 2 lines 51 – 67, column 3 lines 1 – 55).

26. A portable electronic equipment including an input unit comprising:
a body having an interior portion containing electronics that are configured to perform wireless communication, said wireless communication being at least one of mobile telephone communication and television remote controller communication (Column 2 lines 51 – 66);

bioindex detecting means provided within a region including a holding position of a surface of the body with which a finger of a user comes into contact when the user is grasping the body while performing said wireless communication, and for detecting bioindex of the user

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through a skin of the user for a time period during which the user grasps the body (Column 2 lines 51 – 67, column 3 lines 1 – 16); and

bioindex analyzing means for analyzing bioindex which has been detected by the bioindex detecting means (Column 3 lines 7 – 38), wherein

said surface of said body including a first sensor on a first side of said body and a second sensor on a second side of said body, said first sensor and said second sensor positioned to be in contact with a hand of the user when performing wireless communication (Column 2 lines 51 – 67, column 3 lines 1 – 16).

27. The electronic equipment according to claim 26,

wherein the bioindex is at least one of sweating, heartbeat, pulse wave, skin temperature, Galvanic Skin Reflex, Galvanic Skin Response, MV (Micro Vibration), myoelectric potential and SPO2 (blood oxygen saturation level), and combination of these bioindices (Column 2 lines 51 – 67, column 3 lines 1 – 16 heart rate).

41. The electronic equipment according to claim 26, including:

the plural bioindex detecting means, the electronic equipment further comprising selector means for selecting at least one bioindex information from bioindex information which have been detected by the plural bioindex detecting means (Engstrom column 2 lines 51 – 67, column 3 lines 1 – 55);

wherein the bioindex analyzing means serves to analyze bioindex information which has been selected by the selector means (Engstrom column 2 lines 51 – 67, column 3 lines 1 – 55).

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 3, 5, 6, and 28 – 40 are rejected under 35 U.S.C. 103(a) as being unpatentable over Engstrom U.S. Patent No. 6,549,756 in view of Yollin U.S. Patent No. 5,990,866.

In regard to claims 3, 5, 28, and 35, Engstrom discloses detecting heart rate from a plurality of sensors disposed on a mobile device (Engstrom column 2 lines 51 – 67, column 3 lines 1 – 16), yet fails to disclose measuring temperature or galvanic skin response. However, Yollin a reference in an analogous art of collecting physiological data, discloses collecting physiological data via at least GSR, heart rate, and temperature sensors (Yollin column 4 lines 2 – 22). It would have been obvious to one of ordinary skill in the art at the time of the invention to substitute the heart rate sensors of Engstrom with the GSR or temperature sensors of Yollin, since Yollin discloses that it is known in the art of physiological monitoring to use any number of alternative sensors depending on the breadth and complexity of the physiological information sought (Yollin column 4 lines 2 – 22).

6. The input device according to claim 5,

wherein the temperature detecting means is composed of finger tip temperature detecting means for detecting finger tip temperature provided at a position with which finger tip comes into contact when the finger tip temperature detecting means is grasped by finger of the user, and palm temperature detecting means provided at a position with which palm of the user comes into contact and for detecting palm temperature (Engstrom column 2 lines 51 – 67, column 3 lines 1 – 16).

29. The electronic equipment according to claim 28,
wherein display means for displaying guide display for operation and information is provided at the front face portion of a casing (Engstrom figure 1),
the detecting means being provided at the side surface portion of the casing (Engstrom figure 1).

30. The electronic equipment according to claim 28, comprising:
operation means for an operation input (Engstrom column 2 lines 51 – 67, column 3 lines 1 – 55),
wherein the detecting means is provided at a position with which finger of user comes into contact of the surface of the operation means (Engstrom column 2 lines 51 – 67, column 3 lines 1 – 55).

31. The electronic equipment according to claim 28,

wherein the detecting means is provided at the corner portion of the casing (Engstrom column 2 lines 51 – 67, column 3 lines 1 – 55, figure 1).

32. The electronic equipment according to claim 28,
wherein the bioindex detecting means is pulse wave detecting means for detecting pulse wave of user (Engstrom column 2 lines 51 – 67, column 3 lines 1 – 16 heart rate).

33. The electronic equipment according to claim 32,
wherein display means for displaying guide display for operation and information is provided at the front face portion of the casing, and the pulse wave detecting means is provided at the rear face portion opposite to the front face portion of the casing (Engstrom column 2 lines 51 – 67, column 3 lines 1 – 16, figure 1).

34. The electronic equipment according to claim 33,
wherein a detection portion comprising a finger holding cover having internal surface shape curved so as to take substantially the same shape as finger tip shape of the user, and a finger chip insertion portion formed between the finger holding cover and the rear face of the casing is provided at the rear face portion side of the casing, light emitting means being provided at the inner surface of the finger holding cover, light receiving means as the pulse wave detecting means being provided at the rear face of the casing opposite to the light emitting means (Engstrom column 2 lines 51 – 67, column 3 lines 1 – 55, Yollin column 4 lines 2 – 22).

36. The electronic equipment according to claim 35, wherein the temperature detecting means is composed of finger tip temperature detecting means provided at a position with which finger comes into contact when the temperature detecting means is grasped by the finger of the user and for detecting finger chip temperature, and palm temperature detecting means provided at a position with which palm of the user comes into contact and for detecting palm temperature (Engstrom column 2 lines 51 – 67, column 3 lines 1 – 55, Yollin column 4 lines 2 – 22).

37. The electronic equipment according to claim 36, comprising: display means serving to display guide display for operation and information at an outer casing front face portion, wherein one of the temperature detecting means is provided at the side surface portion with respect to the outer casing front face portion (Engstrom column 2 lines 51 – 67, column 3 lines 1 – 55, Yollin column 4 lines 2 – 22).

38. The electronic equipment according to claim 36, comprising: operation means, wherein the finger tip temperature detecting means is provided at a position with which finger of user comes into contact of the surface of the operation means (Engstrom column 2 lines 51 – 67, column 3 lines 1 – 55, Yollin column 4 lines 2 – 22).

39. The electronic equipment according to claim 36, wherein the palm temperature detecting means is provided at the corner portion of the outer peripheral surface side of the casing (Engstrom column 2 lines 51 – 67, column 3 lines 1 – 55, Yollin column 4 lines 2 – 22).

40. The electronic equipment according to claim 36,
wherein a detecting portion comprising a finger holding cover having an internal surface shape curved so as to take substantially the same shape as finger tip shape of the user, and a finger tip insertion portion formed between the finger holding cover and the rear face of the casing is provided at the rear face portion side of the casing (Engstrom column 2 lines 51 – 67, column 3 lines 1 – 55, Yollin column 4 lines 2 – 22),
the finger tip temperature detecting means being provided at the rear face portion of the casing (Engstrom column 2 lines 51 – 67, column 3 lines 1 – 55, Yollin column 4 lines 2 – 22).

Response to Arguments

Applicant's arguments have been considered but are moot in view of the new ground(s) of rejection.

Conclusion

Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period

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will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Kai Rajan whose telephone number is (571)272-3077. The examiner can normally be reached on Monday - Friday 9:00AM to 4:00PM.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Kai Rajan/
Examiner, Art Unit 3769

/Michael C. Astorino/
Primary Examiner, Art Unit 3769

February 2, 2009